

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A noise suppression apparatus, which can remove an inutile noise from an input signal comprising an object signal and the inutile noise mixed therein to output the object signal, said apparatus comprising:

a time/frequency conversion unit which converts the input signal into an amplitude spectrum and a phase spectrum by frequency-analyzing the input signal in each frame;

a noise-likeness analyzing unit which receives the input signal including the object signal and the noise mixed therein, and which performs linear predictive analysis to obtain linear predictive coefficients used to generate a low pass residual signal, and which performs correlation analysis on the input low pass residual signal including the object signal and the noise mixed therein, and which determines the noise-likeness of the input signal frame;

a noise amplitude spectrum calculation unit which calculates the noise amplitude spectrum from the input amplitude spectrum of the frame on the basis of the result of said noise-likeness analyzing unit;

a spectrum correction gain calculation unit which calculates a noise amplitude spectrum correction gain, on the basis of the input amplitude spectrum, the noise amplitude spectrum and a first predetermined coefficient, and which calculates a noise removal spectrum correction gain, on the basis of the input amplitude spectrum, the noise amplitude spectrum and a second predetermined coefficient;

a spectrum deduction unit which calculates a product of the noise amplitude spectrum and the noise amplitude spectrum correction gain, which is sent from said spectrum correction gain calculation unit, then deducts the product from the input amplitude spectrum so as to output a first noise removal spectrum;

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a spectrum suppression unit which calculates a product of the first noise removal spectrum and the noise removal spectrum correction gain so as to output a second noise removal spectrum; and

a frequency/time conversion unit which converts the second noise removal spectrum to a time domain signal.